

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1 - 13(canceled).

14. (new) A method for testing the function of a hydraulic valve (1), which has a pressure connection (P), at least one reservoir connection (T), at least one consumer connection (A, B) and a displaceable control piston (7) for controlling the volumetric flow (\dot{V}) of a pressure medium flowing from the pressure connection (P) to the reservoir connection (T) or consumer connection (A, B), comprising:

using a pressurized gaseous medium as the test medium, which is introduced into the hydraulic valve (1) at the pressure connection (P),

setting the pressure of the gaseous medium to be constant during the testing,

wherein to test the hydraulic valve (1) the control piston (7) is displaced out of an initial position into a second position and out of the second position back again into the initial position, and

wherein the displacement speed of the control piston (7) during the testing of the hydraulic valve (1) is constant.

15. (new) The method as claimed in claim 14, wherein the control piston (7) has a first consumer connection (A) and a second consumer connection (B), and wherein, during the displacement of the control piston (7) out of the initial position into the second position, the consumer connections (A, B) are medium-connected to one another.
16. (new) The method as claimed in claim 15, wherein, during the displacement of the control piston (7) out of the second position back into the initial position, the first and second consumer connections (A, B) are in each case connected to the atmosphere.
17. (new) The method as claimed in claim 14, wherein, during the displacement of the control piston (7) out of the initial position into the second position and out of the second position back again into the initial position, the volumetric flow (\dot{V}) of the gaseous test medium is determined as a function of the time (t) and/or of the distance (x1, x2) covered by the control piston (7), and wherein the volumetric flow values/characteristic curve or curves determined are compared with desired and/or limit values or with at least one desired and/or limit value characteristic curve.
18. (new) The method as claimed in claim 14, wherein the control piston (7) is acted upon or can be acted upon with

force by means of at least one spring element (27), in that, during the displacement of the control piston (7) out of the initial position into the second position and out of the second position back again into the initial position, the force (F) to be applied for this purpose is determined as a function of the time (t) and/or of the distance (x1, x2) covered by the control piston (7), and in that the force values/characteristic curve or curves determined are compared with desired and/or limit values or with at least one desired and/or limit value characteristic curve.

19. (new) The method as claimed in claim 18, further comprising determining the force/hysteresis characteristic curve of the hydraulic valve (1).
20. (new) The method as claimed in claim 19, wherein the force/hysteresis characteristic curve of the hydraulic valve (1) is calculated from the plotted values of the force (F) to be applied for displacing the control piston (7) out of the initial position into the second position or out of the second position into the initial position.
21. (new) The method as claimed in claim 14, wherein the sensing rate of the volumetric flow (\dot{V}) or of the force (F) applied to the control piston (7) can be set during the testing operation.

22. (new) The method as claimed in claim 14, wherein measurement data detection and/or measurement data evaluation takes place online.
23. (new) A test bench (31) which has a pressure connection (P), at least one reservoir connection (T), at least one consumer connection (A, B) and a displaceable control piston (7) for controlling the volumetric flow (\dot{V}) of a pressure medium flowing from the pressure connection (P) to the reservoir connection (T) or consumer connection (A, B), said test bench (31) is adapted to carry out a method for testing the function of hydraulic valves (1) comprising:
- using a pressurized gaseous medium as the test medium, which is introduced into the hydraulic valve (1) at the pressure connection (P),
 - setting the pressure of the gaseous medium to be constant during the testing,
 - wherein to test the hydraulic valve (1) the control piston (7) is displaced out of an initial position into a second position and out of the second position back again into the initial position, and
 - wherein the displacement speed of the control piston (7) during the testing of the hydraulic valve (1) is constant.